

CLAIMS

1. A cast-iron insert (10) around which another metal is to be cast, comprising:

5 a surface (16) for contact with a molten mass of said other metal to be cast around the cast-iron insert (10); and
 a plurality of protrusions (20) disposed on said surface (16) and having respective substantially conical undercuts (18) which are progressively spread outwardly from
10 said surface (16).

2. A cast-iron insert (10) according to claim 1, wherein said protrusions (20) have respective flat faces (21) on distal ends thereof.

15 3. A cast-iron insert (10) according to claim 1, which comprises a cylinder liner (10).

20 4. A method of manufacturing a cast-iron insert, comprising the steps of:

 coating an inner surface of a mold (30) with a facing material (36) containing a thermally insulating material, a binder, a parting agent, a surface active agent, and water;

25 replacing an existing atmosphere in said mold (30) with an inactive gas atmosphere; and

 rotating said mold (30) which has been coated with said facing material (36) and simultaneously pouring molten cast

iron (40) into said mold (30), to produce a cast-iron insert (10) having a surface (16) for contact with a molten mass of another metal to be cast around the cast-iron insert (10), and a plurality of protrusions (20) disposed on said surface (16) and having respective substantially conical undercuts (18) which are progressively spread outwardly from said surface (16).

5. A method according to claim 4, wherein said protrusions (20) have respective flat faces (21) on distal ends thereof.

6. A method according to claim 4, wherein said facing material (36) contains 20 weight % to 35 weight % of diatomaceous earth as said thermally insulating material, 1 weight % to 7 weight % of bentonite as said binder, 1 weight % to 5 weight % of said parting agent, 5 ppm to 50 ppm of said surface active agent, and the remainder of water.

7. A method according to claim 4, wherein said mold (30) is rotated at a mold G No. ranging from 25G to 35G when the inner surface of the mold (30) is coated with the facing material (36).